

***Impatiens sivarajanii* - A new species of Balsaminaceae from Silent Valley National Park, Kerala, India**

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Abstract

A new species of *Impatiens* L. viz., *I. sivarajanii* is described and illustrated.

INTRODUCTION

The genus *Impatiens* L. with over 430 species is distributed mainly in the mountains of tropical Asia and Africa. It has its greatest development in moist subtemperate areas of Indian region viz., the Himalayas in the North, and Western Ghats and a part of Eastern Ghats in the South. Out of the 200 species that occur in India, about 86 species are found in the Western Ghats (Nair, 1991), of which most are endemic to this region; and some of them have recently been reported to be highly endangered. As far as this genus is concerned, Western Ghat region is the main area of speciation. According to Bhaskar (1981) Western Ghat region is the second richest area in the Indian subcontinent, and perhaps in the world, with respect to the distribution of species of *Impatiens*.

During the study on the epiphytic flora of the Western Ghats, one epiphytic balsam has been found to be new to the science and is described in this paper.

***Impatiens sivarajanii* Muktesh et Stephen, sp. nov. (Fig.1)**

Impatiens agumbeana Bhaskar & Razi affinis, in laminis glabris, floribus cremeo-albis, labello late obovato, calcare brevissimo c. 2 mm longo apice obtuso, petalorum laterarium lobo distali minute bilobulato, lobo basali sine auricula dorsali, seminibus aurantiacis evittatis glabris praeter apices ambos differt.

Type: India, Kerala, Palghat Dist., Silent Valley National Park, below Sispara, 1750 m, 26.8.95, Stephen 007885 (Holotype - KFRI).

Epiphytic scapigerous perennial tuberous herb, ca. 10 cm high; tubers white with light violet tinge on the upper side. Leaves 1-2, radical, petiole 4-5 cm long, filiform, lamina ovate, 4.5-5 x 2.4-2.7 cm, apex acute or acuminate, base subcordate, oblique,

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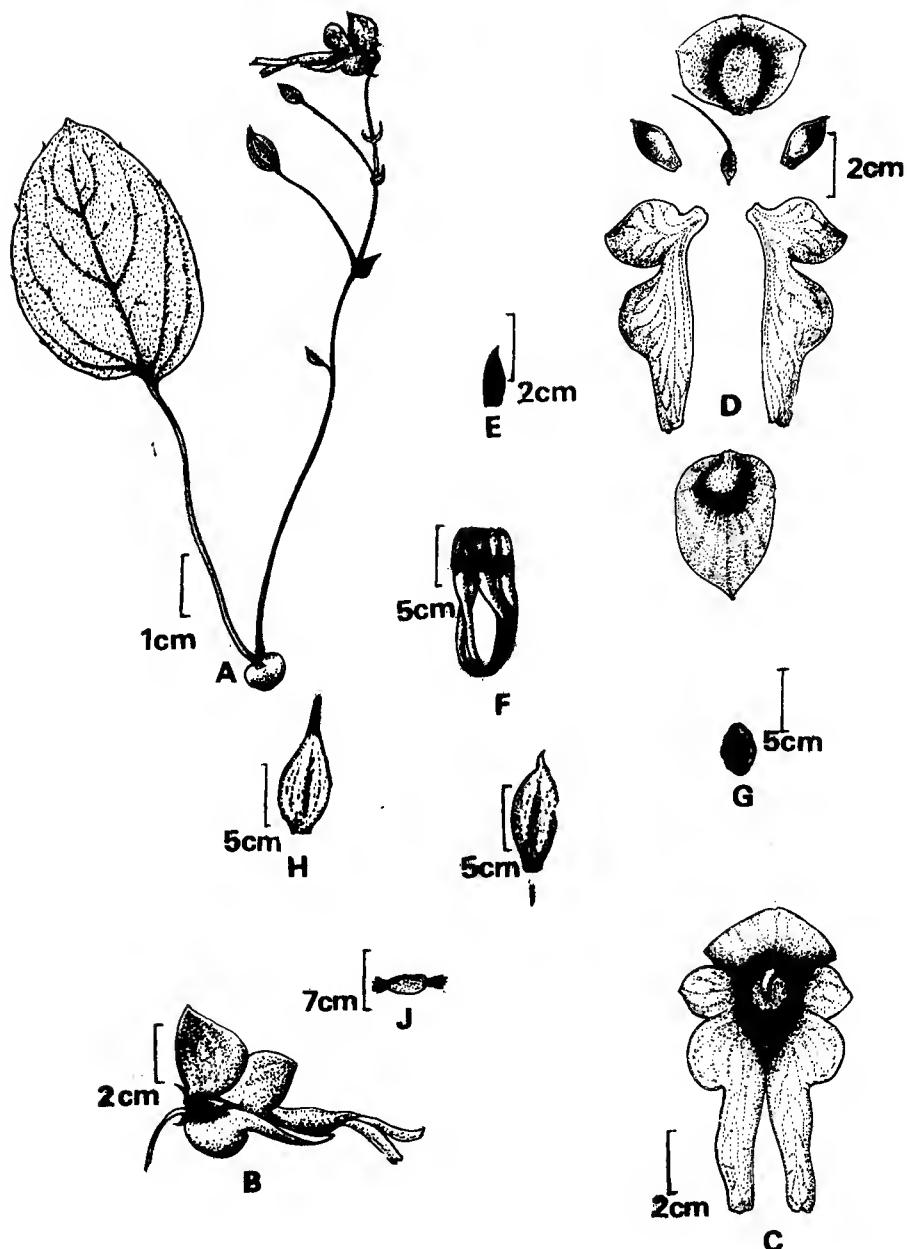


Fig.1. *Impatiens sivarajanii* Muktesh et Stephen. A. Habit; B. Flower; C. Flower front view; D. Floral parts; E. Bract; F. Androecium; G. Anther - top view; H. Gynoecium; I. Capsule; J. Seed.

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margins distantly subcrenate, glabrous except the nerves, crenules minutely apiculate; venation reticulate. Inflorescence 1- 3- flowered raceme, Peduncle/scape ca. 10 cm long, slender; bracts linear lanceolate, 4.5-4.9x1.4-1.9 mm, acuminate, glabrous; pedicels 1-4-1.8 cm long; filiform, glabrous. Flowers ca. 2 x 1.25 cm, creamy white; lateral sepals ovate-elliptic, 0.5x2.5 mm, acute or acuminate, glabrous, green. Lip widely obovate, acuminate, concave, 1.2 x 0.75 mm, glabrous; spur very short, ca. 2 mm, tip rounded. Dorsal petal widely depressed, obovate, concave, 0.75 x 1 cm, glabrous; lateral petals 3-lobed, 1.75 x 0.9 cm; basal lobe ovate-oblong, obtuse at apex; middle lobe more or less confluent with distal one; venation open, dichotomous. Stamens 5, united, ca. 4 mm long; anther 1 mm long. Ovary ovate - elliptic, 3 x 1.4 mm, apex acute, glabrous; stigma sessile, toothed, Capsule oblong-ovate, 3 x 1 mm, apex beaked, glabrous, many-seeded. Seeds narrowly elliptic, 0.8 x 0.3 mm, orange, glabrous except the tips, not banded, tips tufted ciliate.

Allied to *Impatiens agumbeana* Bhaskar & Razi, but differs in having glabrous lamina; creamy white flower, widely obovate lip; very short spur with rounded tip; distal lobe of lateral petals minutely 2-lobuled; basal lobes of lateral petals without dorsal auricle; and seeds orange, glabrous except at both ends, not banded. A comparison of major characters of *Impatiens agumbeana* and *I. sivarajanii* is given in Table 1.

Table 1. Comparison of major characters of *Impatiens agumbeana* Bhaskar & Razi and *Impatiens sivarajanii* Muktesh et Stephen.

<i>Impatiens agumbeana</i>	<i>Impatiens sivarajanii</i>
Lamina pubescent above	Lamina glabrous except the nerves
Flowers pink	Flowers creamy white
Bracts linear or ovate	Bracts linear-lanceolate
Lip flat, spathulate, ca. 4 mm long	Lip widely obovate, concave, ca. 1.2 mm long
Spur very short ca. 2 mm long, slightly curved, obtuse, cylindrical	Spur very short, ca. 2 mm long, tip rounded
Standard petal orbicular	Standard petal obovate
Lateral petals 1.1 cm long, basal lobe distinct, ovate, tip rounded, dorsal auricle prominent, distal lobe not lobuled.	Lateral petals 1.7 cm long, basal lobe distinct, ovate oblong, obtuse at apex, dorsal auricle absent, distal lobe minutely 2-lobuled
Seeds oblong, brownish, hairs dense and elongated at either ends, spirally banded	Seeds narrowly elliptic or oblong, orange, glabrous except the tips, not banded.

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Distribution: Endemic to Silent Valley, Palghat Dist., Kerala, India.

Habitat and Ecology: Epiphytic, growing on moss-clad tree trunks at altitudes of 1750-1800 m.

Flowering and fruiting: August-October.

Etymology: The species is named after (Late) Prof. V.V Sivarajan, who has made very valuable contribution to angiosperm systematics.

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